How I Build a Cittern, part 5 - Odds and Ending.

Some ideas for bridges.

1568 Eglantine table; 18th c. French?

C. 1690 Edwart Collier; 20th c. Pakistan;

C. 1670 Frans Mieris

More, similar, examples of the two extremes can be found on The Renaissance Cittern Site, cittern.theaterofmusic.com/ and on Google. There seems not to be any historical development - the earliest and latest cittern bridges above being very alike. They are transmitters of sound, so should be as light as is possible, compatible with solidity and firmness.

The joint between the sides and the neck-block will need to be covered by a ‘split-baluster’ turning. These are made by glueing two layers of thin paper between pieces of wood, and turning an ornamental length which exactly matches the height required. This is then split apart - which is where two layers of paper prove better than one - and glued over the joint. Some fiddling will probably be necessary! Disks cut from a dowel, very slightly narrower than the baluster, will cover the joint at the
belly and back as necessary. Originals are frequently carved to simple floral shapes or concentric rings. Making more than are needed will allow better matching for the belly and back pairs. Those on the belly will need trimming to fit against the finger-board.

Most unaltered citterns have carved heads, the exceptions being the large traditional Italian citterns which use elaborated scrolls. The quality varies considerably. The female heads on the RCM Campi, and the Tilman in Berlin are crude and appear to have been finished with a modelling material (gesso?) before being painted. Other ornament on both instruments is elaborate and well-finished. It is of course possible to use a specialist carver. Pepys’ viol had a carver who was paid separately - one seventh of the total cost. Palmer’s orpharion has a head very similar to another maker’s viol, again suggesting a separate carver. Animal, especially imaginary, and ugly or amusing heads are considerably easier than beauty. Several of my own citterns still carry heads first modelled in Plasticene by my six-year old son. Fairgrounds and ship’s figureheads are better sources than art galleries. Some originals, and especially those seen in Dutch paintings, have heads very vertical to the neck, which may cause problems when fitting a case. If a Kingham-type case is going to be needed, it is better that the head should lean further back. Refer to the drawing of the side view of the mould in Part 1. Relative to the ‘datum line’, the front of the head will need to be not much higher than the level of the top of the bridge.
Asked to make a unicorn’s head for a tenor cittern, I was lucky enough to find a photo of that from HMS Unicorn. The wood rectangle in the right-hand photo represents the boundaries for the outline of the finished head. The larger plasticene model was the first attempt where I learnt something of the shape of horses as seen in lumps of wood. This was slightly too large and not as compact as I wanted. The smaller was chosen and the unfinished carving is seen in the left-hand photo. One constriction was that the head had to dip forward a little so that the horn would eventually fit inside the instrument case. During carving a screw holds the head to a support in a vice, and the screw-hole will be used for a dowel between the head and the peg-box. A metal dowel is visible on an x-ray of one of the Virchi citterns in Paris. Alternatives to carving are beheading a doll, or a resin casting from the plasticene model. Many are painted, the best-known being Archduke Ferdinand’s Virchi in Vienna.
Ingenuity, Heath Robinson and the dowel will aid clamping during gluing.

A ruff is a useful visual connection between the carving and the working parts of the cittern. In the case of the unicorn, it was necessary to fair the head into the peg-box so some of the carving was left until after gluing. Usually I’ve not found this necessary. The bone horn was glued in after the varnish was finished and polished. In the case of the jester above, the painted decoration on the head was done after the first clear coats of varnish, but before the colour coats, using a water-based paint which remains unaffected by the oil-based varnish. The heads shown are all of lime, which is very kind to cuts against the grain, and light-weight. Pear will accept more detail but is harder to cut.

Before varnishing I use two coats of glue size, the first very well rubbed down, the second less so. As there is always a risk of opening glue joints with hot size, I use it cold, as a jelly, applied with scrap foam-plastic. Citterns are varnished all over, making them difficult to handle. A dowel through the peg-holes of a hanging instrument is one
possibility. Because the inside of my peg-boxes are painted, this, the top surface of the frets and the saddle - which will be scraped off later - are available for handling. I use my own oil-varnish, two pale coats, around six colour coats, two top coats. There are awkward corners so the varnish is applied one area at a time, quickly and unevenly with a brush, then evened-out with by dabbing with a cut (to get into corners) piece of foam. (Cennino Cennini describes this, although using a piece of sponge, on panel paintings.) Another, dry, piece of foam is used meanwhile to remove surplus varnish especially where two areas meet. An order of working is necessary, mine starts at the head as far as the nearest or next peg-hole, which is where I shall finish and is most likely to show the join. If the join is moved up and down a little with successive coats it should disappear into any flame in the wood. Now holding the instrument by the neck, this is followed by the fingerboard from the 11th or 12th fret to the end, the adjacent top and around the rose to cover the belly - this may be in two parts depending on how quickly the varnish is solidifying, the block and sides, where a joint with the neck may be necessary, the back, the remainder of the fingerboard and neck up to the first peg-hole, then, with fingers inside the pegbox, the pegbox. With the fingers of the other hand against the saddle, the cittern can rest on its fret surface under UV or sunshine, being reversed when the back is hard. Variations are possible, though limited!

Dutch paintings of citterns generally show more expensive instruments than the one above. Almost invariably the sides are striped and we do not know how they were made. Those that I have made were almost certainly made ‘wrongly’. My first one was taken as far as the ‘ready for block, bars, side supports stage’ with the sides finished shaping to receive the belly. The shape of the sides was copied onto a card template. This was laid out flat and divided into three equal stripes. (These are quite complex curves.) A copy was made and saved. The upper stripe was cut away, and another template copied from the lower two which were then also separated. The templates were then used to transfer the tripartite division to the wood which was then unglued from the back. The woods used in this case were sycamore and ebony,
so required lines of white sycamore and black-stained sycamore to be inserted. The central segment was to be replaced with ebony, so was waste. The lowest was cut from the whole and re-glued to the back. It was found impossible to bend lines to fit, so they were glued to this upper surface in sections of ordinary veneer. (Black dye from sycamore veneer can stain adjacent surfaces so needs sizing with very weak glue beforehand.) A central stripe of ebony was made from the templates, bent, and glued in place. Checked, and reduced against the template of the two lower stripes. Second layer of lines added. Top stripe glued in place and matched to the original template of the sides. This stripe was now too narrow by the width of the lines, but this was unnoticeable when the belly thickness was added. There was some trimming necessary and the whole process seemed unnecessarily long. However the templates were used successfully again for another 5 or 6 similar instruments using ebony or plum for the darker wood. Their repeated use became much quicker. The cittern in Brussels, on which my copies are based, also has striped edging to the belly. It is desirable that there should be a similar number of diamonds on treble and bass sides and essential that they should match at the neck-block and saddle. A couple of extra slots in the mitre block help.

A number of drawings have been published by museums. None are ideal models although all have useful information. Obtainability varies, so is best found on-line.

Ashmolean Museum.
Gasparo da Salo. Originally probably five course. Useful for showing barring. The fingerboard and frets are completely replaced. one piece back
Anon. (Virchi?) Italian. 6 course. Too large for the English repertoire. Fretting altered to ET.
Anon. Probably Michael Bochum, Cologne c. 1720. 4 course, 3-piece back. Late.

Vermillion NMM.
Petrus Rautta? English or German, perhaps 1679. Treble-sized, 4 double courses. Ugly and obviously replaced comb. Otherwise a good model for Playford’s gittern. With an extra peg for an octaved 3rd course, it could be used for the more difficult music in Robinson and Holborne, but would be at the wrong pitch for most Consort Lesson ensembles today. (Though not all...)

Urbino cittern. 1582. A large carved-out instrument, so not really relevant here. The drawing describes it as four course, but it is actually for six.

Royal College of Music, London.
Campi c. 1600. A smaller carved-out instrument, so again not really relevant.

Sebastián Núñez has made drawings both of the remains of two excavated Dutch citterns, and of his reconstruction. Good but needs barring as described in these articles.

Leipzig Grassi museum.
Drawings of four citterns (1594) played by angels in the Freiberger Dom. Rustic and incomplete.